

REMARKS

Claims 18-48 are pending in the present application, claims 1-17 having been cancelled and claims 18-48 having been added. The Office Action and cited references have been considered. Favorable reconsideration is respectfully requested.

The Examiner is thanked for the courtesies shown during the personal interview on April 23, 2010. The present amendment is presented in accordance with the discussions during that interview. The Interview Summary Record mailed on April 27, 2010, accurately reflects those discussions.

The drawings were objected to because elements 2 and 3 should designated by a legend such as --Prior Art--. Applicant is submitting herewith a corrected sheet showing the "(Prior Art)" legend. The drawings were rejected to under 37 1.83(a) because the drawings must specified every feature of the invention. The Examiner indicated that the ribs recited in original claim 7 were not shown. Applicant's representative pointed out that Fig. 5 shows ribs (raised portions 27). Accordingly, withdrawal of this objection is respectfully requested.

The disclosure was objected to because the specification should include section headings. The specification has been amended to insert the section headings. Withdrawal of this objection is respectfully requested.

Claims 1-4, 12 and 16 were rejected under 35 U.S.C. §102(b) as being anticipated by Walker (U.S. Patent No. 1,878,075). Claims 1-4, 12, 16 and 17 were rejected under 35 U.S.C. §102(b) as being anticipated by Major (U.S. Patent No. 1,959,434). Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable

over Walker. Claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker or Major. Claims 5-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Major in view of Kimura (U.S. Patent No. 3,692,384). Claims 8 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Astill (U.S. Publication No. 2007/0086088). Claims 9-10, and 13-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Abbott (U.S. Patent No. 1,878,570). Claims 1-17 were cancelled in favor of new claims 18-48, thus rendering this rejection moot. However, Applicant contends that the new claims are patentable over the cited art and will discuss this contention below.

Claim 18 recites a fixed pixel video projection installation comprising a projection screen and a sound source disposed behind said screen, said screen including a sheet having a projection face and provided with at least three passages configured to allow sound waves emitted by the sound source to pass through said sheet, wherein the disposition of the passages of the plurality is such that the most dense alignments thereof that can be detected have a non-zero inclination relative to the vertical and horizontal edges of the screen so as to minimize the risk of coincidence between the vertical and horizontal alignments of the projected image pixel structures and the projection screen passage structure. This is not taught, disclosed or made obvious by the prior art of record.

Each of the independent claims 18, 44, 45, and 46 each have similar limitations: they each recite that the sheet is provided with at least three passages with a disposition such that the most dense alignments thereof have a non-zero inclination

relative to the vertical and horizontal alignments of the projected image pixel structures and the projection screen passage structure. Through this design, the invention provides a reduce risk of a moiré effect, that could otherwise be achieved.

Walker dates back to 1932, at a time where video, and thus fixed pixel video projection, did not exist. There was thus no risk of "moiré" effect. Walker deals with a talking motion picture screen, more specifically with the provision of a type of motion picture screen behind which a source of sound may be located, through which the sound emitted may pass, and from the outer surface of which light will be reflected (see lines 1-10 of page 1), as well as the provision of a screen of the above type where the plurality of orifices are so located that although any individual orifice may be observed or seen, the plurality of these orifices form themselves into no definite geometric figure (left column of page 1). Walker mentions that, for preventing the existence of annoying or disturbing lines or geometric figures caused by the arrangement of holes through the screen, it has been necessary to make such holes so small as to greatly impair the sound transmission efficiency of the screen (lines 77-87 of page 1), it being noted that little advantage is gained in increasing the number of holes so that it is important to pierce holes through which sound may pass directly (from line 87 of page 1 to line 27 of page 2).

Walker teaches a method whereby holes may be punched in a screen so that a very close observer, although he notes the holes, may not observe any distinct series of lines, bars, shadows or geometric pattern cause by a plurality thereof (lines 28-34 of page 3). More precisely, this reference proposes, as per its figures 1 and 2 (see

from line 53 of page 2), a screen comprised of a coated fabric material or possibly rubber, with a pyroxylin compound on both sides so as to aid in stiffening the fabric to permit of punching holes therein (bottom of left column of page 2). As explained from line 71 of page 2, holes are made in four series 1-1-1-1, 2-2-2-2, 3-3-3-3, 4-4-4-4 which are alignments with different spaces between the holes, these series being staggered so that the holes are "apparently" not aligned (see figure 1 and end of right column of page 2), and the succession of series being reproducible (series 5 is identical to series 1). The holes of such a screen are far more large than in the past, *i.e.*, about 0.0624" instead of 0.041-0.050"" so as to prevent any constriction of sound waves (lines 18-30 of page 3). Since figure 1 is defined as an elevational view of the screen, the lines made by the holes of the series are horizontal, *i.e.*, parallel to an edge of the screen.

Thus, Walker cannot and does not anticipate the independent claims.

Major dates back to 1934, approximately to the same period as Walker, and deals with a motion picture screen which possesses excellent light reflecting properties, but which, at the same time, is readily pervious to sound waves (lines 4-6 of page 1). A drawback of known screens is that the openings reduce the reflecting surface of the screen so it is necessary to increase the intensity of the light source, whereas the film is highly inflammable (lines 15-31 of page 1).

Major teaches a screen which is impervious to light rays while being pervious to sound waves, preferably of metal (bottom of left column of page 1). The embodiment of figures 2 and 3 comprises two layers separated by a coarse mesh wire fabric and comprising offset perforations (from line 102 of page 1). The embodiment of

figures 4 and 5 differs from the first embodiment by the fact that the layers are separated by ribs (from line 51 of page 2). Thus this part of the reference teaches to provide a screen comprising two spaced layers.

On each layer, the most dense alignments thereof that can be detected do not have a non-zero inclination relative to the vertical and horizontal edges of the screen, in contrast to the claimed invention. In particular, from figure 4, assuming it is drawn to scale (which may not be true), shows that along the horizontal and vertical direction, the holes appear to be equally spaced. Therefore, along the diagonal direction (*i.e.*, a non-zero inclination with respect to the horizontal and vertical edges), the length between the holes is longer than the length between holes along the horizontal and vertical direction. Thus, the most dense alignments are along the horizontal and vertical direction, and do not have a non-zero inclination with respect to the horizontal and vertical edges. Thus, the embodiment of figure 4 does not anticipate the independent claims.

The embodiments of figures 7 to 12 of Major are screens composed of woven wire fabric, where the interstices between the wires are inclined at such an angle to the surface to the surface of the screen that when the screen is held to the light with its surface normal to the line of vision it will appear to be opaque; the weft and warp wires produce a double layered fabric (top of right column of page 2). The screen is preferably passed through calendering rolls for flattening the wires (end of page 2). In Major, there is apparently a requirement for a family of threads (the vertical ones) being substantially larger in diameter than the other family of threads (the horizontal ones).

There again it appears that the teaching deals with providing two layers (made by the horizontal threads) spaced apart by the large other threads.

In other words, the teachings of this reference are focusing on generating double layer screen surfaces, having the same characteristics and optimized for sound purposes.

It results from the analysis made above that Walker teaches alignments 1-1-1-1, 2-2-2-2, 3-3-3-3, 4-4-4-4 which are horizontal so that they are parallel to an edge of the screen; since these alignments are clearly the most dense alignments, this reference teaches a screen with most dense alignments which are parallel to the horizontal edge of the screen; further this document dates back to a period where the problem of "moiré" effect due to fixed pixel video projection did not exist. Thus, Walker fails to anticipate the features of the independent claims. Applicant also submits that since this document teaches the use of very large holes, a person ordinarily skilled in the art would not have been lead to give any attention to such a document

Applicant respectfully submits that the features of new claims 19 and 20 are in no way taught by Walker. Since Walker teaches to punch the screen with large holes of 0.0625 inches, it is considered that Walker also fails to teach the subject-matter of new claim 23.

As to new claim 24, Applicant respectfully submits that this claim relates to a screen where the passages result from a weaving. Thus, since Walker teaches punching holes in a screen which may be woven, Walker fails to teach the subject-matter of this claim 24, especially with the dimensions mentioned in new claim 25 or 26.

Applicant respectfully submits that there is no teaching or suggestion in Walker for passage dimension as mentioned in claim 32, which is thus patentable over this art.

Applicant further submits that new claim 38 (which corresponds to old claim 12) is intended to cover a screen where the passages results from a weaving whereas no weft threads are apparent in this weaving; it is thus considered that Walker, which fails to teach any weaving forming passages while the weft threads are not apparent fails to teach the subject-matter of such claim 38.

Applicant further submits that new claim 44 covering an installation with a screen constituted of a perforated screen (whereas Walker teaches horizontal alignments) is patentable over this reference Walker. New claim 45 is patentable for the same reasons as for claim 24. Depending claims 47 and 48 are patentable too, for at least the same reasons.

The subject-matter of new claim 46 with an additional layer "superimposed" on the sheet (and not spaced to this sheet) is neither taught nor suggested by Walker so that this claim is patentable over this reference.

As to Major, it is considered that the embodiments of figures 2 to 5 teach to give most dense alignments of holes an orientation parallel to the edges of the screen. Further, it appears that the embodiments of figures 7 to 12 disclose weavings where passages are aligned in fact horizontally (see figure 6) when assuming that the passages are provided by the short inclined lines at the left of each vertical thread (see also figure 11). In any case, Major fails to teach any advantage in having most dense

alignments which have a non-zero inclination with respect to horizontal or vertical edges. It is thus considered that Major fails to anticipate the features of new claim 18.

It may be added that the double layered structure of the screens of Major are prima facie not able to be rolled, whereas it is a requirement for most screens in video projection installations. For the same reasons, Major fails to anticipate claim 22. Major fails to anticipate claim 28 (corresponding to old claim 7). Major fails to anticipate claim 29 since, in fact, Major teaches globally horizontal threads 1, 2, 3 or 4 having non linear form.

It is to be noted that there is no teaching or suggestion in Major for passage dimension as mentioned in claim 32, which is thus patentable over this art.

In any case, Major fails to anticipate claim 38 (corresponding to old claim 12), for the same reason as to Walker in connection with the first embodiments, and since the embodiments from figure 6 on clearly leave the threads apparent.

It is further submitted that new claim 44 is patentable over this reference (Major teaches two sheets, with horizontal and vertical alignments).

As to new claim 45, it is submitted that is patentable over Major which teaches to have two parallel layers of horizontal threads, separated by larger vertical threads. Further Major fails to teach or suggest claims 47 and 48.

The subject-matter of new claim 46 with an additional layer "superimposed" on the sheet (and not spaced to this sheet) is neither taught nor suggested by Major so that this claim is patentable over this reference. It may be added that the statement of the ability of such additional layer to be transparent to sound

waves means that this layer has no characteristic of light reflectivity (it can be black), what is different from the teaching of Major.

None of the other cited references remedy the deficiencies discussed above with respect to Walker and Major. For at least these reasons, Applicant respectfully submits that the claims are patentable over the prior art of record.

In view of the above amendment and remarks, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections of record. Applicant submits that the application is in condition for allowance and early notice to this effect is most earnestly solicited.

If the Examiner has any questions, he is invited to contact the undersigned at 202-628-5197.

Respectfully submitted,

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